

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/364,847DATE: 08/19/1999
TIME: 11:14:12

PAGE: 1

Input Set: I364847.RAW

This Raw Listing contains the General Information
Section and up to first 5 pages.

1 <110> APPLICANT: Peoples, Oliver P
2 Madison, Lara L
3 Huisman, Gjalt W
4 <120> TITLE OF INVENTION: Enzymes for Biopolymer Production
5 <130> FILE REFERENCE: MBX 030
6 <140> CURRENT APPLICATION NUMBER: US/09/364,847
7 <141> CURRENT FILING DATE: 1999-07-30
8 <150> EARLIER APPLICATION NUMBER: 60/094,674
9 <151> EARLIER FILING DATE: 1998-07-30
10 <160> NUMBER OF SEQ ID NOS: 61
11 <170> SOFTWARE: PatentIn Ver. 2.0
12 <210> SEQ ID NO 1
13 <211> LENGTH: 1182
14 <212> TYPE: DNA
15 <213> ORGANISM: Alcaligenes eutrophus
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18 <222> LOCATION: (1)..(1182)
19 <223> OTHER INFORMATION: phbA gene
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22 ctggccaaga tcccggcacc ggaactgggt gccgtggtca tcaaggccgc gctggagcgc 120
23 gccggcgtca agccggagca ggtgagcgaa gtcacatcgt gccagggtgt gaccgccggt 180
24 tcggggccaga accccgcacg ccaggccgcg atcaaggccg gccctgccgc gatggtgccg 240
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26 gcgatcatgg cgggcgacgc cgagatcgtg gtggccggcg gccaggaaaa catgagcgcc 360
27 gccccgcacg tgctgccggg ctgcgcgatg ggtttccgca tgggcgatgc caagctggtc 420
28 gacaccatga tcgtcgacgg cctgtgggac gtgtacaacc agtaccacat gggcatcacc 480
29 gccgagaacg tggccaagga atacggcatc acacgcgagg cgcaggatga gttcgcgctc 540
30 ggctcgcaga acaaggccga agccgcgcag aaggccggca agtttgacga agagatcgtc 600
31 ccggtgctga tcccgcagcg caagggcgac ccggtggcct tcaagaccga cgagttcgtg 660
32 cgccagggcg ccacgctgga cagcatgtcc ggccctcaag ccgccttcga caagggccgc 720
33 acggtgaccg cggccaacgc ctcgggcctg aacgacggcg ccgcccgggt ggtggtgatg 780
34 tcggcgccca aggccaagga actgggcctg accccgctgg ccacgatcaa gagctatgcc 840
35 aacgccggtg tcgatcccaa ggtgatgggc atggggcccg tgccggcctc caagcgcgcc 900
36 ctgtcgcgcg ccgagtggac cccgcaagac ctggacctga tggagatcaa cgaggccttt 960
37 gccgcgcagg cgctggcggt gcaccagcag atgggctggg acacctcaa ggtcaatgtg 1020
38 aacggcgggc ccacgcgatc cggccaccgc atcggcgctg cgggctgcgc tatcctgggt 1080
39 acgctgctgc acgagatgaa gcgcgctgac gcgaagaagg gcctggcctc gctgtgcatc 1140
40 gggcgcgcca tgggcgtggc gctggcagtc gaggcgaaat aa 1182
41 <210> SEQ ID NO 2
42 <211> LENGTH: 393
43 <212> TYPE: PRT
44 <213> ORGANISM: Alcaligenes eutrophus

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PAGE: 2

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/364,847

DATE: 08/19/1999

TIME: 11:14:12

Input Set: I364847.RAW

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45 <220> FEATURE:
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47 <222> LOCATION: (1)..(393)
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54 Val Ile Lys Ala Ala Leu Glu Arg Ala Gly Val Lys Pro Glu Gln Val
55 35 40 45
56 Ser Glu Val Ile Met Gly Gln Val Leu Thr Ala Gly Ser Gly Gln Asn
57 50 55 60
58 Pro Ala Arg Gln Ala Ala Ile Lys Ala Gly Leu Pro Ala Met Val Pro
59 65 70 75 80
60 Ala Met Thr Ile Asn Lys Val Cys Gly Ser Gly Leu Lys Ala Val Met
61 85 90 95
62 Leu Ala Ala Asn Ala Ile Met Ala Gly Asp Ala Glu Ile Val Val Ala
63 100 105 110
64 Gly Gly Gln Glu Asn Met Ser Ala Ala Pro His Val Leu Pro Gly Ser
65 115 120 125
66 Arg Asp Gly Phe Arg Met Gly Asp Ala Lys Leu Val Asp Thr Met Ile
67 130 135 140
68 Val Asp Gly Leu Trp Asp Val Tyr Asn Gln Tyr His Met Gly Ile Thr
69 145 150 155 160
70 Ala Glu Asn Val Ala Lys Glu Tyr Gly Ile Thr Arg Glu Ala Gln Asp
71 165 170 175
72 Glu Phe Ala Val Gly Ser Gln Asn Lys Ala Glu Ala Ala Gln Lys Ala
73 180 185 190
74 Gly Lys Phe Asp Glu Glu Ile Val Pro Val Leu Ile Pro Gln Arg Lys
75 195 200 205
76 Gly Asp Pro Val Ala Phe Lys Thr Asp Glu Phe Val Arg Gln Gly Ala
77 210 215 220
78 Thr Leu Asp Ser Met Ser Gly Leu Lys Pro Ala Phe Asp Lys Ala Gly
79 225 230 235 240
80 Thr Val Thr Ala Ala Asn Ala Ser Gly Leu Asn Asp Gly Ala Ala Ala
81 245 250 255
82 Val Val Val Met Ser Ala Ala Lys Ala Lys Glu Leu Gly Leu Thr Pro
83 260 265 270
84 Leu Ala Thr Ile Lys Ser Tyr Ala Asn Ala Gly Val Asp Pro Lys Val
85 275 280 285
86 Met Gly Met Gly Pro Val Pro Ala Ser Lys Arg Ala Leu Ser Arg Ala
87 290 295 300
88 Glu Trp Thr Pro Gln Asp Leu Asp Leu Met Glu Ile Asn Glu Ala Phe
89 305 310 315 320
90 Ala Ala Gln Ala Leu Ala Val His Gln Gln Met Gly Trp Asp Thr Ser
91 325 330 335
92 Lys Val Asn Val Asn Gly Gly Ala Ile Ala Ile Gly His Pro Ile Gly
93 340 345 350
94 Ala Ser Gly Cys Arg Ile Leu Val Thr Leu Leu His Glu Met Lys Arg

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PAGE: 3

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/364,847

DATE: 08/19/1999
TIME: 11:14:12

Input Set: I364847.RAW

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95          355          360          365
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98      Gly Val Ala Leu Ala Val Glu Arg Lys
99      385          390
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103  <213> ORGANISM: Artificial Sequence
104  <220> FEATURE:
105  <223> OTHER INFORMATION: Description of Artificial Sequence:
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107  <400> SEQUENCE: 3
108      ggggtaccag gaggttttta tgactgacgt tgtcatcgta tcc 43
109  <210> SEQ ID NO 4
110  <211> LENGTH: 37
111  <212> TYPE: DNA
112  <213> ORGANISM: Artificial Sequence
113  <220> FEATURE:
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116  <400> SEQUENCE: 4
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121  <213> ORGANISM: Alcaligenes eutrophus
122  <220> FEATURE:
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124  <222> LOCATION: (1)..(741)
125  <223> OTHER INFORMATION: phbB gene
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128      cagcggctgg ccaaggatgg ctttcgtgtg gtggccggtt gcggcccaa ctcgccgcgc 120
129      cgcgaaaagt ggctggagca gcagaaggcc ctgggcttcg atttcattgc ctcggaaggc 180
130      aatgtggctg actgggactc gaccaagacc gcattcgaca aggtcaagtc cgaggtcggc 240
131      gaggttgatg tgctgatcaa caacgccggt atcacccgcg acgtgggtgtt ccgcaagatg 300
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134      gtgaacgggc agaagggcc a gttcggccag accaactact ccaccgcaa ggccggcctg 480
135      catggcttca ccatggcact ggcgaggaa gtggcgacca agggcgtgac cgtcaacacg 540
136      gtctctccgg gctatatcgc caccgacatg gtcaaggcga tccgccagga cgtgctcgac 600
137      aagatcgtcg cgacgatccc ggtcaagcgc ctgggcctgc cggaagagat cgctcgtac 660
138      tgcgcctggt tgctcgtcga ggagtccggt ttctcgaccg gcgccgactt ctcgctcaac 720
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141  <211> LENGTH: 246
142  <212> TYPE: PRT
143  <213> ORGANISM: Alcaligenes eutrophus
144  <220> FEATURE:

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PAGE: 4

RAW SEQUENCE LISTING
PATENT APPLICATION US/09/364,847

DATE: 08/19/1999

TIME: 11:14:12

Input Set: I364847.RAW

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153 Gly Cys Gly Pro Asn Ser Pro Arg Arg Glu Lys Trp Leu Glu Gln Gln
154 35 40 45
155 Lys Ala Leu Gly Phe Asp Phe Ile Ala Ser Glu Gly Asn Val Ala Asp
156 50 55 60
157 Trp Asp Ser Thr Lys Thr Ala Phe Asp Lys Val Lys Ser Glu Val Gly
158 65 70 75 80
159 Glu Val Asp Val Leu Ile Asn Asn Ala Gly Ile Thr Arg Asp Val Val
160 85 90 95
161 Phe Arg Lys Met Thr Arg Ala Asp Trp Asp Ala Val Ile Asp Thr Asn
162 100 105 110
163 Leu Thr Ser Leu Phe Asn Val Thr Lys Gln Val Ile Asp Gly Met Ala
164 115 120 125
165 Asp Arg Gly Trp Gly Arg Ile Val Asn Ile Ser Ser Val Asn Gly Gln
166 130 135 140
167 Lys Gly Gln Phe Gly Gln Thr Asn Tyr Ser Thr Ala Lys Ala Gly Leu
168 145 150 155 160
169 His Gly Phe Thr Met Ala Leu Ala Gln Glu Val Ala Thr Lys Gly Val
170 165 170 175
171 Thr Val Asn Thr Val Ser Pro Gly Tyr Ile Ala Thr Asp Met Val Lys
172 180 185 190
173 Ala Ile Arg Gln Asp Val Leu Asp Lys Ile Val Ala Thr Ile Pro Val
174 195 200 205
175 Lys Arg Leu Gly Leu Pro Glu Glu Ile Ala Ser Ile Cys Ala Trp Leu
176 210 215 220
177 Ser Ser Glu Glu Ser Gly Phe Ser Thr Gly Ala Asp Phe Ser Leu Asn
178 225 230 235 240
179 Gly Gly Leu His Met Gly
180 245
181 <210> SEQ ID NO 7
182 <211> LENGTH: 36
183 <212> TYPE: DNA
184 <213> ORGANISM: Artificial Sequence
185 <220> FEATURE:
186 <223> OTHER INFORMATION: Description of Artificial Sequence:
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188 <400> SEQUENCE: 7
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190 <210> SEQ ID NO 8
191 <211> LENGTH: 37
192 <212> TYPE: DNA
193 <213> ORGANISM: Artificial Sequence
194 <220> FEATURE:

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PAGE: 5

RAW SEQUENCE LISTING PATENT APPLICATION US/09/364,847

DATE: 08/19/1999
TIME: 11:14:12

Input Set: I364847.RAW

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195 <223> OTHER INFORMATION: Description of Artificial Sequence:
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200 <211> LENGTH: 1926
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202 <213> ORGANISM: Alcaligenes eutrophus
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206 <223> OTHER INFORMATION: phbA-linker-phbB fusion gene
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210     gccggcgctc agccggagca ggtgagcgaa gtcacatcgt gccaggtgct gaccgcccgt 180
211     tcgggccaga accccgcacg ccaggccgcg atcaaggccg gcctgccggc gatggtgccg 240
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219     cgccagggcg ccacgctgga cagcatgtcc ggcctcaagc ccgccttcga caagggccgc 720
220     acggtgaccg cggccaacgc ctccggcctg aacgacggcg ccgcgcgggt ggtggtgatg 780
221     tcggcgccca aggccaagga actgggcctg accccgctgg ccacgatcaa gagctatgcc 840
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223     ctgtcgcgcg ccgagtggac ccgcgaagac ctggacctga tggagatcaa cgaggccttt 960
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228     gcgtatgtga ccggcgccat ggggtggtatc ggaaccgcca tttgccagcg gctggccaag 1260
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238     atcccggtca agcgctggg cctgcccggaa gagatcgctc cgatctgcgc ctggttgctg 1860
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240     ggctga 1926
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242 <211> LENGTH: 641
243 <212> TYPE: PRT
244 <213> ORGANISM: Artificial Sequence

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PAGE: 6

VERIFICATION SUMMARY
PATENT APPLICATION US/09/364,847

DATE: 08/19/1999
TIME: 11:14:12

Input Set: I364847.RAW

Line ? Error/Warning

Original Text
